State of Vermont Department of Public Safety

DIVISION OF FIRE SAFETY

OFFICE OF THE STATE FIRE MARSHAL, STATE FIRE ACADEMY AND THE STATE HAZ-MAT TEAM

FIRE SAFETY NEWS

VERMONT

JANUARY 2014

Inside this issue:

BOARD DEADLINE REMINDER

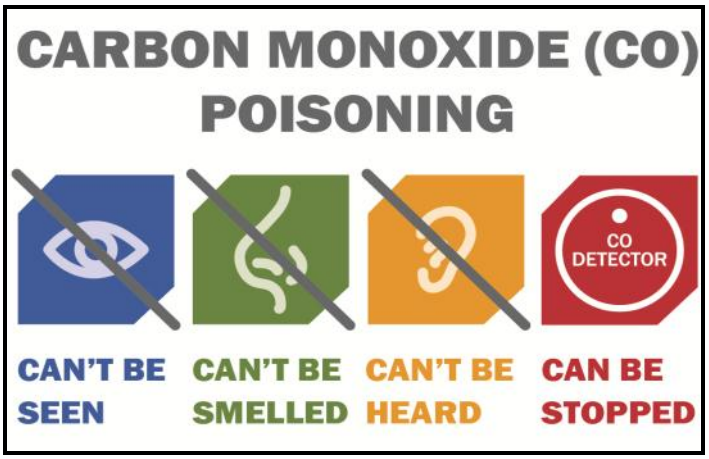
If you have a board agenda item, it needs to be received at the Central Office no later than 2 weeks prior to the board meeting.

(For all boards – Access, Electrical, Elevator & Plumbing)

Meetings:

January:
Plumbing: 1/14/14
Access: 1/27/14

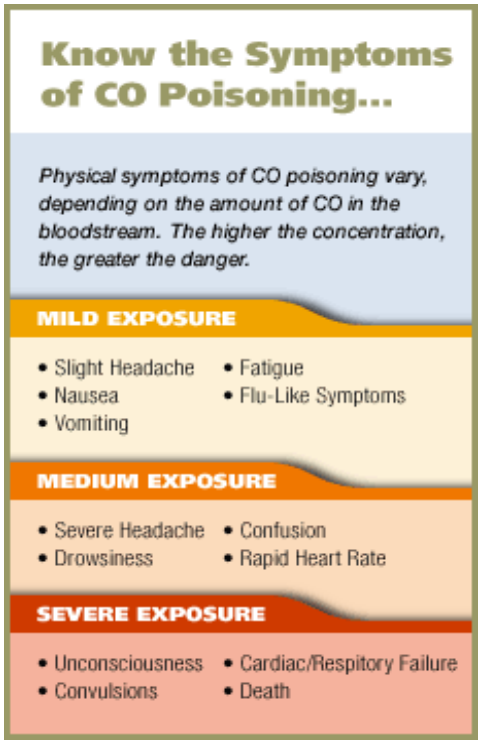
February:
Electrical: 2/4/14
Elevator: 2/11/14
Access: 2/24/14



Carbon Monoxide

	Deaths	FD Response to alarms	Incidents with high levels of CO
Prior 1996-2004	11	-	-
2005	4	778	451
2006	1	781	422
2007	1	1046	568
2008	0	1152	610
2009	0	1044	515
2010	1	1047	483
2011	1	1612	668
2012	0	1341	459

ALWAYS INSTALL CARBON MONOXIDE DETECTORS ON ALL LEVELS OF YOUR HOME!



NFIRS

The deadline for submitting all 2013 Fire Incident reports is January 17, 2014 !

See Page 2 for more information

NFIRS

National Fire Incident Reporting System

Fighting Fire with Facts

Time is Running Out to Get Your Fire Incident Reports Up-To–Date!

Fire department reporting is required by state law. And each fire department is required to submit their emergency incident data reports to the Vermont State Fire Marshal's Office in accordance with Vermont Law 20 V.S.A. Section 2833.

The deadline for submitting all 2013 Fire Incident reports is January 17, 2014 !

The Division of Fire Safety continues to thank those departments that report valid incident reports on a timely bases. These reports are being used at the state and national level to make decisions that will affect public safety and the fire service for years to come.

For additional Incident Reporting Resources or information please visit:

http://firesafety.vermont.gov/fire_investigation/vfirs/

If you need your user account reset or if you need additional help please email a request.

Please include: Your department name, FDID #, and the account user name. We will reset the account to the default password as soon as possible. Please note, due to the massive volume of phone calls we receive this time of year, we are not able to accept reset requests by phone. An email allows us to re-set you faster.

Contact one of the State Program Managers if you require additional assistance.

State Program Managers Contact Information:

Stanley Baranowski
Phone: 800-640-2106 or
802-479-7575
E-Mail: Stanley.Baranowski@state.vt.us

Michael D. Greenia
1311 U.S. Route 302, Suite 600
Barre VT, 05641-2351
Phone: 800-640-2106 or
802-479-7587
E-Mail: Michael.Greenia@state.vt.us

Clean Agent -- Fire Extinguishing Systems

Clean Agent systems are very common for the protection of computer servers and other electronic equipment rooms.

STANDARD

NFPA 2001, *Standard on Clean Agent Fire Extinguishing Systems,* 2012 edition

ACCEPTANCE AND ROOM INTEGRITY TESTING

All required acceptance testing of Section 7.7 shall be done and documented.

(Only the section titles are listed here)

7.7 Approval of Installations (NFPA 2001)
7.7.1 General. *The completed system shall be reviewed and tested by qualified personnel to meet the approval of the authority having jurisdiction. Only listed equipment and devices shall be used in the systems. To determine that the system has been properly installed and will function as specified, the following tests shall be performed.*

7.7.2.2 Review Mechanical Components.
7.7.2.3* Review of Enclosure Integrity.
7.7.2.4 Review of Electrical Components.
7.7.2.5 Functional Testing.
7.7.2.5.1 Preliminary Functional Tests.
7.7.2.5.2 System Functional Operational Test.
7.7.2.5.3 Remote Monitoring Operations.
7.7.2.5.4 Control Panel Primary Power Source.
7.7.2.3* Review of Enclosure Integrity (NFPA 2001).

All total flooding systems shall have the enclosure examined and tested to locate and then effectively seal any significant air leaks that could result in a failure of the enclosure to hold the specified agent concentration level for the specified holding period. Quantitative results shall be obtained and recorded to indicate that the specified agent concentration for the specified duration of protection is in compliance with Section 5.6, using an approved blower fan unit or other means as approved by the authority having jurisdiction.

The enclosure shall be re-inspected annually.

7.4 Enclosure Inspection (NFPA 2001). *Other than as identified in 7.4.1, the enclosure protected by the clean agent shall be thoroughly inspected at least every 12 months to determine if penetrations have occurred that could lead to agent leakage, if other changes have occurred that could change volume of hazard, or both. Where the inspection indicates conditions that could result in the inability of the enclosure to maintain the clean agent concentration, the conditions shall be corrected. If uncertainty still exists, the enclosure shall be retested for integrity in accordance with 7.7.2.3.*

DESIGN, INSTALLATION, TESTING

All work on a Clean Agent System, including design, installation, and acceptance testing must be done by a person certified to do such work.

NFPA 1 Section 1.13.1(2) as amended by the VFBSC 2012.

(Continued from Page 3)

Design, installation, inspection, servicing or recharging of ***Fixed Fire Extinguishing Systems*** *– A current certificate from the National Institute for Certificate in Engineering Technologies (NICET) for fire suppression; or from the National Association of Fire Equipment Distributors (NAFED) for Pre-Engineered Kitchen Fire Extinguishing System or Industrial Pre-Engineered Fire Extinguishing System.*

REMOVAL OF SPRINKLER PROTECTION

Many times with Clean Agent System installation, the sprinkler system in the room is removed. See the accompanying memorandum on the Divisions position for this issue.

QUESTIONS

If you have any questions on the installation of a Clean Agent System contact any of the Division of Fire Safety's Regional Offices.

Elevator Rule Meeting Scheduled

The Vermont Elevator Safety Board will convene a meeting to discuss proposed elevator rules update including updating to the 2013 A17.1 Elevator code.

Meeting will be held at the Division of Fire Safety central office in Berlin on January 7, 2014 at 9am.

Anyone with interest is encouraged to attend.

VERMONT

Division of Fire Safety
Central Office
1311 U.S. Route 302 - Berlin
Suite 600
Barre, VT 05641-2351
www.FireSafety.Vermont.gov

[phone] 802-479-7561 or 800-640-2106
[fax] 802-479-7562

Department of Public Safety

MEMORANDUM

From: Robert A. Patterson, Deputy Director R.A.P.

To: Inspectors, Vendors

RE: Clean Agent Installations

Date: December 23, 2013

This memorandum clarifies the Division's position on installation requirements for clean agent systems regarding when a reserve agent supply is required (NFPA 2001 Section 4.1.1.2).

- A building which is not required to be protected with an automatic sprinkler system is not required to provide reserve agent supply.

- Alternative suppression system may be installed without connected reserve agent supply if protected hazard area is 300 square feet or less in area, when within a building required to be protected by an automatic sprinkler system. Sprinkler heads may be omitted from hazard area. The hazard area room shall be separated from other adjacent rooms or building areas by 1-hour fire resistive construction, with a self-closing fire door assembly of at least ¾ hour (NFPA 101 Table 8.3.4.2).

- Hazard areas greater than 300 square feet where sprinkler protection is required shall,

A- have sprinkler protection remain but may be controlled by a visible operating valve outside the protected room, or

B- a reserve agent supply must be provided that can be manually operated by fire department using the same piping system. (NFPA 2001 Section 4.1.1.3). The reserve supply must be capable of being activated/discharged by the fire department from outside of the protected room.

- The hazard area room shall be separated from other adjacent rooms or building areas by 1-hour fire resistive construction, with a self-closing fire door assembly of at least ¾ hour (NFPA 101 Table 8.3.4.2)

- All total flooding systems shall have the door fan test for enclosure as required by NFPA 2001 7.7.2.3 (Enclosure Integrity)

Carbon Monoxide Safety

Often called the silent killer, carbon monoxide is an invisible, odorless, colorless gas created when fuels (such as gasoline, wood, coal, natural gas, propane, oil, and methane) burn incompletely. In the home, heating and cooking equipment that burn fuel can be sources of carbon monoxide.

- CO alarms should be installed in a central location outside each sleeping area and on every level of the home and in other locations where required by applicable laws, codes or standards. For the best protection, interconnect all CO alarms throughout the home. When one sounds, they all sound.
- Follow the manufacturer's instructions for placement and mounting height.
- Choose a CO alarm that has the label of a recognized testing laboratory.
- Call your local fire department's non-emergency number to find out what number to call if the CO alarm sounds.
- Test CO alarms at least once a month; replace them according to the manufacturer's instructions.
- If the audible trouble signal sounds, check for low batteries. If the battery is low, replace it. If it still sounds, call the fire department.
- If the CO alarm sounds, immediately move to a fresh air location outdoors or by an open window or door. Make sure everyone inside the home is accounted for. Call for help from a fresh air location and stay there until emergency personnel.
- If you need to warm a vehicle, remove it from the garage immediately after starting it. Do not run a vehicle or other fueled engine or motor indoors, even if garage doors are open. Make sure the exhaust pipe of a running vehicle is not covered with snow.
- During and after a snowstorm, make sure vents for the dryer, furnace, stove, and fireplace are clear of snow build-up.
- A generator should be used in a well-ventilated location outdoors away from windows, doors and vent openings.
- Gas or charcoal grills can produce CO — only use outside.

HOME HEATING EQUIPMENT

Have fuel-burning heating equipment and chimneys inspected by a professional every year before cold weather sets in. When using a fireplace, open the flue for adequate ventilation. Never use your oven to heat your home.

FACTS

- A person can be poisoned by a small amount of CO over a longer period of time or by a large amount of CO over a shorter amount of time.
- In 2010, U.S. fire departments responded to an estimated 80,100 non-fire CO incidents in which carbon monoxide was found, or an average of nine calls per hour.

NFPA Your Source for SAFETY Information
NFPA Public Education Division • 1 Batterymarch Park, Quincy, MA 02169
www.nfpa.org/education

VT HAZMAT TEAM NOTES

Chris Herrick, Chief

PROPERTIES OF FLAMMABLE LIQUIDS & GASES

The majority of HAMZAT incidents both in Vermont and nationally have to do with spills or leaks of petroleum based products. These include LP-Gas, diesel fuel, gasoline, kerosene, methyl ethyl ketone and ethyl alcohol. It is very likely that your fire department will encounter some of these in the near future and having a basic understanding of the properties will assist you in managing the response safely. Below you will find the definitions of the physical and chemical properties that are associated with combustible and flammable liquids.

Flash Point-The minimum temperature that a liquid must be heated to produce a vapor will flash when an ignition source is present. Generally this number is used to give a relative idea how flammable it is. For instance gasoline has a flash point if -50F, so on a normal day in Vermont it is likely it will be warm enough to give off flammable vapors. Kerosene has a flash point of 150F and we know Kerosene is much less likely to give of flammable vapors.

Fire Point- This is the temperature at which a liquid gives off enough vapor to sustain combustion when there is an ignition source present. This is differs from flash point in that the combustion will continue. Often times this temperature is close to the flash point and the flash point is more useful to the responder.

Flammable Range- The flammable range is made up of the Lower Explosive Limit (LEL) and the Upper Explosive Limit (UEL). The LEL is the lowest concentration of a vapor in air that is ignitable while the UEL is the highest concentration that is ignitable. For gasoline the range is from 1.3% to 7.1% in air. So if the concentration is .5% it is too lean and if it is 10% it is too rich to burn. Compare this to Acetylene which has a flammable range of 2% to 100%.

Vapor Density- This is the relative weight of the vapor as compared to air which is assigned the value of 1. So if the vapor density is greater then 1 the vapor will settle to the ground and if it is less then 1 it will rise. Propane has a vapor density of 1.5 so it will stay close to the ground and seek low areas, while methane has a vapor density of .55 so it will rise.

Specific Gravity-This has to do with liquids and not gases. Similar to vapor density specific gravity compares a liquids proclivity to sink or float as compared to water which is given the value of 1. Gasoline has a specific gravity of .73 so it will float while chlorlobenzene has a specific gravity of 1.1 indicating it will sink.

These are just a few of the important properties that help us understand how chemicals will react when they get out of containment. Please remember to use caution and to call the HAZMAT Team if you need any assistance.

Christopher Herrick, M.Ed. CFO

Chief VHMRT

Christopher.Herrick@state.vt.us

802-479-7586

HAZMAT HOTLINE 1-800-641-5005

Candle Safety

Candles may be pretty to look at but they are a cause of home fires — and home fire deaths. Remember, a candle is an open flame, which means that it can easily ignite anything that can burn.

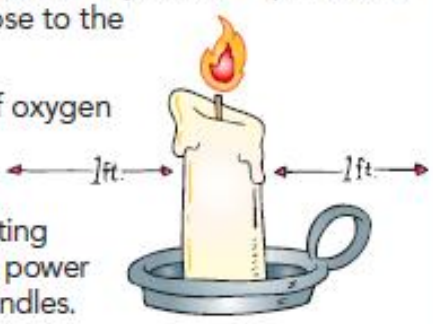
"CANDLE WITH CARE"

- Blow out all candles when you leave the room or go to bed. Avoid the use of candles in the bedroom and other areas where people may fall asleep.
- Keep candles at least 12 inches away from anything that can burn.

Think about using flameless candles in your home. They look and smell like real candles.

IF YOU DO BURN CANDLES, make sure that you...

- Use candle holders that are sturdy, and won't tip over easily.
- Put candle holders on a sturdy, uncluttered surface.
- Light candles carefully. Keep your hair and any loose clothing away from the flame.
- Don't burn a candle all the way down — put it out before it gets too close to the holder or container.
- Never use a candle if oxygen is used in the home.
- Have flashlights and battery-powered lighting ready to use during a power outage. Never use candles.



Candles and Kids

Never leave a child alone in a room with a burning candle. Keep matches and lighters up high and out of children's reach, in a locked cabinet.

FACTS

- **December** is the peak time of year for home candle fires.
- Roughly **one-third** of home candle fires started in the bedroom.
- More than half of all candle fires start when things that can burn are too close to the candle.

Your Source for SAFETY Information
NFPA Public Education Division • 1 Batterymarch Park, Quincy, MA 02169
www.nfpa.org/education

State of Vermont Dept of Public Safety

Division of Fire Safety

www.firesafety.vermont.gov

CALENDAR OF FIRE EVENTS

January 2014

SUN	MON	TUE	WED	THU	FRI	SAT
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Date	*Event*	*Location*
18th-26th	**Snowmobile Safety Week**	All

~ EVENTS ~
New Years Day—January 1, 2014, STATE HOLIDAY
Martin Luther King Jr. Day—January 20,2014, STATE HOLIDAY

BOARD MEETING DATES

Plumbing Board Meeting—January 14, 2014 (10am)
Access Board Meeting—January 27, 2014 (1:30pm)

February 2014

SUN	MON	TUE	WED	THU	FRI	SAT
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

Date	*Event*	*Location*
2nd-8th	**National Burn Awareness Week**	All
14	**Valentines Day**	All
MONTH	**Black History Month**	All

~ EVENTS ~
Presidents' Day—February 17, 2014, STATE HOLIDAY

BOARD MEETING DATES

Electric Board Meeting– February 4, 2014 (9am)
Elevator Board Meeting—February 11, 2014 (9am)
Access Board Meeting— February 24, 2014 (1:30pm)

State of Vermont Division of Fire Safety

1311 US Route 302—Berlin Suite 600

Barre, VT 05641-2351

FIRESAFETY.VERMONT.GOV

To be added to the monthly newsletter email mailing list contact Nicole at Nicole.York@state.vt.us

REMEMBER …. Smoke Detectors, Fire Sprinklers and Carbon Monoxide Detectors Save Lives

Vermont Department of Public Safety

Division of Fire Safety

Central Office

1311 US Route 302— Suite 600
Barre, VT 05641-2351
Phone (802) 479-7561 Fax (802) 479-7562
Toll Free (800) 640-2106

***HAZMAT** Response Team*
Phone (802) 479-7586
Fax (802) 479-7562
Toll Free (800) 641-5005

Vermont Fire Academy

93 Davison Drive
Pittsford, VT 05763
Phone (802) 483-2755 Fax (802) 483-2464
Toll Free (800) 615-3473

Regional Offices:

Barre

1311 US Route 302— Suite 500
Barre, VT 05641-7301
Phone (802) 479-4434 Fax (802) 479-4446
Toll Free 1-888-870-7888

Springfield

100 Mineral Street, Suite 307
Springfield VT 05156-3168
Phone (802) 885-8883 Fax (802) 885-8885
Toll Free 1-866-404-8883

Rutland

56 Howe Street, Building A-Suite 200
Rutland, VT 05701
Phone (802) 786-5867 Fax (802) 786-5872
Toll Free (888) 370-4834

Williston

372 Hurricane Lane, Suite 102
Williston, VT 05495-7151
Phone (802) 879-2300 Fax (802) 879-2312
Toll Free (800) 366-8325

DIVISION OF STATE POLICE—FIRE INVESTIGATION

Waterbury—103 South Main Street, Waterbury, VT 05671-2101— (802) 244-8781—Fax (802) 241-5371